

CLAIMS

1. Process for the distribution of air enriched in oxygen to the passengers of an aircraft, in which there is
5 supplied to the passengers a first fraction of air enriched in oxygen from an independent source, during a phase of descent of the aircraft between a cruising altitude and a re-routing altitude, and there is produced, in an onboard separator, a
10 second fraction of air enriched in oxygen, which is delivered to the passengers at least during a substantially stabilized phase of the flight of the aircraft, taking place substantially at the re-routing altitude.

2. Process according to claim 1, characterized in that
15 the re-routing altitude is greater than 5,500 meters.

3. Process according to claim 1, characterized in that the re-routing altitude is comprised between 6,000 and 8,000
20 meters.

4. Process according to claim 1, characterized in that the second fraction of enriched air has an oxygen content comprised between 60 and 95% and is produced at a pressure
25 between 1.5 and 2.5 bars gauge.

5. Process according to claim 4, characterized in that said second fraction of air is produced in a molecular sieve concentrator (2).

5 6. Process according to claim 1, characterized in that the independent source contains oxygen at a pressure higher than 110 bars gauge.

7. Process according to claim 1, characterized in that,
10 during the phase of flight at the re-routing altitude, substantially no more of the first fraction of air enriched in oxygen is supplied to the passengers.

8. Process according to claim 1, characterized in that,
15 during said phase of descent, only the first fraction of enriched air is supplied and during the substantially stabilized phase of flight, only the second fraction of enriched air is supplied.